

Remarks:

Reconsideration of the application is requested.

Claims 1 to 14 remain in the application. Claims 1 to 12 are subject to examination and claims 13 and 14 have been withdrawn from examination. Claim 1 has been amended. A marked-up version of the claim is attached hereto on a separate page.

Initially, applicants acknowledge the Examiner's responses to arguments set forth on page 2 of the final Office action.

In the second paragraph of the responses, the Examiner disagrees with the definition of the field of the invention as "the art of vacuum-insulating heat block walls." The Examiner then continues to state that the phrase "an intermediate space that can be evacuated" is "not limited to structures with a space which is evacuated but only one that could be evacuated." (Emphasis added by applicants.) Applicants respectfully disagree. Nonetheless, to even more clearly define the invention of the instant application, and the art relevant to the invention of the instant application, as set forth in further detail below, claim 1 specifically provides: "said two outer covering layers together with said connecting profile enclosing an evacuated intermediate space." (Emphasis added by applicants.) As such, the art relevant to the

instant application clearly is limited to structures with a space that is evacuated. U.S. Patent No. 1,898,977, which issued to Comstock in 1928, is limited to structures that are not evacuated. Thus, Comstock is entirely irrelevant to the art of the invention of the instant application, as set forth in further detail below.

In the third paragraph of the responses, the Examiner casually states that the factual statements made by applicants on pages 6 to 7 of the March 2, 2001 Amendment are "unsupported by facts."

Initially, applicants note that Schmidberger (DE 1 004 207) was a reference first identified and cited, not by applicants, but by the Examiner in the June 18, 1999 Office action. Based upon such a citation, applicants assumed that the Examiner knew the substance of such a reference -- in spite of the fact that the entire text of Schmidberger is in the German language. The Examiner continued to cite this reference in five subsequent Office and Advisory Actions. In response to the citation of this reference in the December 1, 2000 Office action, applicants made arguments distinguishing Schmidberger from the invention of the instant application. These arguments were not based upon unsupported facts, as casually alleged by the Examiner. Rather, they were based upon the fact that applicants understand German, actually read the text

of Schmidberger, and, based upon such reading and their experience in the art of the invention of the instant application, proffered the distinguishing aspects of Schmidberger as compared to the invention of the instant application.

Applicants must conclude that the Examiner's statements in the third paragraph of the responses can only mean that the Examiner does not understand German and, therefore, does not appreciate that applicants made their arguments based upon their understanding of the entirety of the Schmidberger reference. As such, in order to support the Examiner's accusation that applicants arguments are "unsupported by facts," applicants respectfully request that the Examiner have Schmidberger translated into English and determine whether or not such accusations are correct.

Applicants are compelled to mention the fact that the copy of Schmidberger provided to applicants by the Examiner was extremely light, was missing the entirety of figures 2 and 4 therein, and was missing a substantial portion of text therein, thus, making it virtually impossible for applicants to read Schmidberger in its entirety. Nonetheless, applicants were able to read enough of that which was provided in the figures and text to make the arguments set forth in the March 2, 2001 Amendment -- arguments that are entirely supported by

facts contained in the drawings and text of Schmidberger. Applicants respectfully request that such a translation and a new copy of all drawings be supplied to applicants for their review as well.

Finally, in the fourth paragraph of the responses, the Examiner asks: "Just what are support pieces 10?" The support pieces 10 mentioned on page 7 of the March 2, 2001 Amendment in the paragraph related to Schmidberger are just that, the elements of Schmidberger that are designated with the reference numeral 10 in FIG. 3 of Schmidberger. The fact that the Examiner does not understand the reference to support pieces 10 can only support applicants' conclusion that the Examiner does not understand German and, therefore, did not read text on reference numeral 10 in Schmidberger. This fact further supports the request to have the Examiner translate Schmidberger so that applicants' reference becomes apparent.

In the last paragraph of the responses, the Examiner states that there is no "positional compensator" in claim 1. Applicants respectfully disagree. Claim 1 does not provide a tube section including two end sections, with at least one of the two end sections compensating for positional imprecisions between said aperture and said tube section. Rather, claim 1 actually provides "a tube section including two end sections, at least one of said two end sections . . . being formed to

compensate for positional imprecisions between said aperture and said tube section." The words "being formed to compensate" is structural and, therefore, is a structural feature of claim 1. As such, the Examiner's statement that a "positional compensator" is not found in claim 1 is incorrect.

On page 3 of the above-identified Office action, claims 1 to 7 have been rejected as being fully anticipated by Comstock (U.S. 1,898,977) or by Schmidberger (DE 1 004 207) under 35 U.S.C. § 102.

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claim 1 calls for, *inter alia*, a heat insulated wall, including:

two outer covering layers having contours and disposed at a distance from one another, the two outer covering layers connected to one another in a vacuum-tight manner by a connecting profile running along the contours, the two outer covering layers together with the connecting profile enclosing an evacuated intermediate space filled

with an evacuable heat insulating material, at least one of the two outer covering layers having an aperture formed therein; and

a tube section including two end sections, one of the two end sections having a circumferentially positioned flange-shaped expanded and flattened region fixed in a vacuum-tight manner at the aperture of the at least one of the two outer covering layers and being formed to compensate for positional imprecisions between the aperture and the tube section.

Comstock, which issued in 1928, discloses a vacuum insulation as applied to refrigerators and the like. Comstock sets forth on page 1, line 98, to page 2, line 20, that at the time of his invention it was "extremely difficult to provide absolutely air or gas-tight housings of considerable size in commercial quantities, especially when these vacuum containers are partially formed of metal sheets with soldered and/or welded joints or seams." Comstock at page 1, line 97, to page 2, line 3 (emphasis added by applicants). Because, in Comstock's time, the vacuum present in insulation walls leaked and was difficult to maintain, Comstock invented a "pumping means to maintain a comparatively high vacuum within the insulating chamber." Comstock at page 2, lines 7 to 10. The pumping means is configured to be used "in substantial

continuous operation when the vacuum wall is in use as an insulating factor." Comstock at page 10, lines 9 to 12 (emphasis added by applicants). It is this pumping means that is the primary subject of Comstock.

On pages 8 and 9, Comstock describes the non-conducting bridge that is illustrated primarily in Figs. 4 and 5. Nowhere does Comstock disclose or suggest any aspect of positional tolerance correction, let alone describe a tube section end that compensates for positional imprecisions between the aperture and the tube section as set forth in the last paragraph of claim 1.

Similarly, nowhere does Schmidberger disclose or suggest the tolerance equalization feature of the invention of the instant application.

The flanged tube of applicants' device does not support the two outer layers. It is the connecting profile, disposed in the peripheral region of the cover layers and connecting the two cover layers to each other, that mutually supports the two cover layers in the evacuated state. The evacuable thermal insulation material disposed between the cover layers also supports the cover layers. Such a configuration guarantees the support necessary for the two cover layers against one another for thermally insulating walls based on vacuum

insulation technology. Support using the flanged tube has undesirable effects. Specifically, partial supporting with a pipe portion having flange-like corners leads to problematic dips between the support points in an evacuated thermally insulated wall. Such dips are unacceptable in thermally insulating walls.

This disadvantage leads directly to Schmidberger, which does not contain a thermally insulating wall based on vacuum insulation technology. As such, the support measure/support piece 10 applied between the Schmidberger cover layers is entirely realistic for that particular 1957 application. It is precisely this type of support that is used for conventional modes of insulation such as disclosed by Schmidberger. However, one having ordinary skill in the art of vacuum-insulating heat blocking walls knows that such support is totally unusable for the invention of the instant application because the high-performance heat blockage that is provided by vacuum insulation is entirely eliminated by the heat bridges -- arising as a consequence of the separating support pieces 10. Such a distinction demonstrates that the two types of heat insulation, namely, that proposed by Schmidberger and that according to the invention of the instant application, are in no way comparable and are, in fact, incompatible.

At best, applicants respectfully believe that any teaching, suggestion, or incentive possibly derived from Comstock or Schmidberger is only present with hindsight judgment in view of the instant application. "It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. . . . The references **themselves** must provide some teaching whereby the applicant's combination would have been obvious." In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (emphasis added). Here, no such teachings are present in any of the cited references.

Applicants respectfully believe that vacuum-insulation technology is not a subdivision of insulation technology as a whole and, therefore, is not within the preview of one having ordinary skill in the art of insulation technology. Heat blockage based on vacuum-insulation technology is not a subgroup of conventional heat insulation technology.

Conventional technology almost exclusively uses foaming heat blocking materials, such as polyurethane or the like. Thus, such technology calls upon the knowledge of a chemist.

Vacuum-insulation technology, in contrast, is concerned mainly with free pathways of air molecules. Consequently, the knowledge of a physicist prevails. By definition, the different types of problems arising in these two technologies

(which run parallel to each other rather than in serial) require the use of different experts for overcoming the problems separately conditioned by each of the two different technologies.

Clearly, neither Comstock nor Schmidberger shows a positional compensator as recited in claim 1 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

Insofar as claim 1 is patentable, and due to the fact that claims 8 to 12 are ultimately dependent upon claim 1, applicants respectfully believe that these dependent claims are patentable as well. Accordingly, applicants respectfully believe that the rejection of claims 8 to 12 on page 4 of the Office action under 35 U.S.C. § 103 is now moot.


In view of the foregoing, reconsideration and allowance of claims 1 to 12 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

In the alternative, the entry of the amendment is requested, as it is believed to place the application in better condition for appeal, without requiring extension of the field of search.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



For Applicants

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August 21, 2001

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Version of Claim With Markings to Show Changes Made:

Claim 1 (three times amended). A heat insulated wall,
comprising:

a connecting profile;

an evacuable heat insulating material;

two outer covering layers having contours and disposed at a distance from one another, said two outer covering layers connected to one another in a vacuum-tight manner by said connecting profile running along said contours, said two outer covering layers together with said connecting profile enclosing an evacuated intermediate space [that can be evacuated and] filled with said evacuable heat insulating material, at least one of said two outer covering layers having an aperture formed therein; and

a tube section including two end sections, at least one of said two end sections having a circumferentially positioned flange-shaped expanded and flattened region fixed in a vacuum-tight manner at said aperture of said at least one of said two outer covering layers and being formed to compensate for positional imprecisions between said aperture and said tube section.